

Work Order ID 65346

January 12, 2011 1:14:37 PM



Page 1

Item ID: D3689-1

Accept



Setup Start



Revision ID:

Stop



Item Name: SLEEVE

Start Date: 1/12/11 Start Qty: 8.00



Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 8.00



Customer:

Reference:

Run Start



Approvals: Process Plan: W Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3689	Rev B								

100

0.00



DOOSAN LATHE

Doosan

Memo

0.00

Doosan Lathe

1- Turn as per Folio FA722 Rev: B & Dwg D3689 Rev: B
2-CHECK THREAD WITH GO-NO GO GAUGE DT9450 A & B
3-Deburr per dwg D3689

SA 11/3/16

8

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

SA 11/3/16

8

120

0.00



CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

Conventional Milling Machine

C'sink .188" holes as per dwg D3689

SA 11/3/16

8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval ^s QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Required Date: 1/28/11	Req'd Qty: 8.00		Customer:		
Reference:					

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00				8			
140 QC Quality Control	QC8- Inspect parts - second check Memo 100% CHECK,CHECK ALL DIMENSIONS AND THREAD FIT	0.00 0.00				8			
150 Purchasing Purchasing	PURCHASING Memo Issue P/O: 13743 LPI Per ASTM 1417 LEVEL 2 Certificate of conformaty is required	0.00 0.00							

PI-11-03-30
(E)

W/O:		WORK ORDER CHANGES					
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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

Run 1/31/11 (S)

170

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/11/03/31

(28)

180

Identify as per dwg & Stock Location: *GA*

0.00



Packaging

Memo

0.00

Packaging

Sylvie

8/11/03/31

(8)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 8.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/3/31

D11103-31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

Picklist Print

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Page 1

Work Order ID: 65346

Parent Item: D3689-1

Parent Item Name: SLEEVE



Start Date: 1/12/11

Required Date: 1/28/11

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP Rev:A New Issue 08-02-11 JLM Verified By:EC
 IPP Rev:B Material Change 09-01-07 JLM Verified By:EC
 IPP Rev:C Add note on material cutting JLM Verified By:JM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174PH-H900R1.375 		Purchased	No			100	f	34.4000	0.5	4.210526			
17-4 SS H900 ROUND BAR 1.375													

W 3/20

Location	Loc Qty	Loc Code
MAT030	34.4	
110540	1.5	
111123	32	
112374 <i>Group</i>	0.9	

1.5 17
2 24
7 24

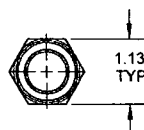
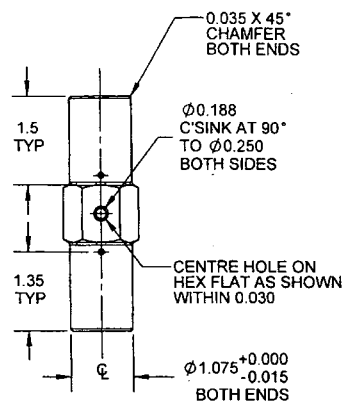
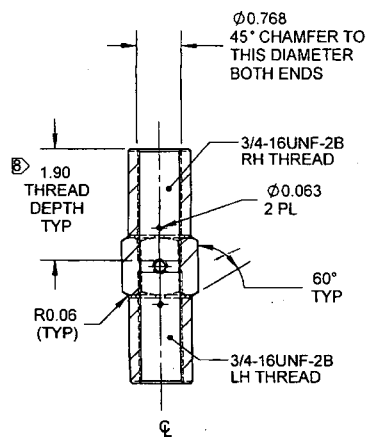
W/O:		WORK ORDER CHANGES					
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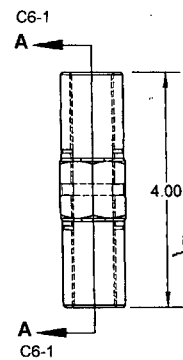
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D3689-1 SLEEVE



W6 65346

RELEASED
68/12/15 JMB

- NOTES:**
- 1) MATERIAL: 17-4PH STAINLESS STEEL ROUND BAR PER AMS 5643 H-900 CONDITION
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.67 lb
 - 8) DIMENSION SHOWN IS MINIMUM DEPTH OF FULL THREAD
 - 9) LPI PER ASTM 1417 LEVEL 2

B	CHANGE TO 17-4PH H-900 (ZN A8-1); REFORMATTED TO CURRENT DWG STANDARDS	RF	08.11.24
A	NEW ISSUE	RF	08.05.22
REV.		BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	97	DRAWING NO.	REV. B
MFG. APPR.	97	D3689	SHEET 1 OF 1
APPROVED	97	TITLE	SCALE
DE APPR.	97	SLEEVE	NTS
DATE	08.11.24	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRELIMINARY AND CONFIDENTIAL AND IS SUPPLIED IN CONFIDENCE. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
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DART AEROSPACE LTD		Work Order: 65346
Description: Sleeve		Part Number: D3689-1
Inspection Dwg: D3689	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.90	+/-0.030	1.90	/			SA-9
Ø0.768	+/-0.010	Ø.768	/			
Ø0.063	+0.005/-0.001	Ø.062	/			
R0.06	+/-0.030	0.32	/			
3/4-16UNF-2B	N/A		/			
0.035 x 45°	+/-0.010 x 0.5°	0.035 x 45°	/			
1.5	+/-0.030	1.495	/			
1.35	+/-0.030	1.352	/			
Ø0.188	+0.005/-0.001	Ø.189	/			
90°	0.5°	90°	/			
Ø0.250	+/-0.010	Ø.250	/			
Ø1.075	+0.000/-0.015	Ø1.070	/			
1.13	+/-0.030	1.132	/			
4.00	+/-0.030	4.008	/			

Measured by: SA	Audited by: [Signature]	Prototype Approval:	N/A
Date: 11/2/13	Date: 11.3.13	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.05.11	New Issue	KJ	[Signature]

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LIQUID PENETRANT TEST REPORT

P- 12234

PAGE 1 OF 1

CLIENT DART AEROSPACE DATE MARCH 30-2011 TIME AM ☒ PM ☐
ATTENTION LINDA LACELLE ACUREN JOB NO. 188-11-02067
ADDRESS 1270 ABERDEEN ST. PO/WO No. —
HAWKES BURY ON. WORK LOCATION HAWKES BURY
KGA 1K7 ACCEPTANCE STD. ASTM 1417/051-038 REV./DATE 2005
PROJECT F.P.T. on CROSS TUBES & SLEEVES
ITEM(S) EXAMINED (C) (8)

JOB DESCRIPTION	PROCEDURE NO. <u>LT-2</u> REV./DATE <u>2008</u>	TECHNIQUE NO. <u>LT-2</u> REV./DATE <u>2008</u>
PART NO. <u>—</u>	MATERIAL <u>ALUMINUM</u> THICKNESS <u>VARIOUS</u>	
SCOPE <u>WET FLUORESCENT LIQUID PENETRANT INSPECTION</u> <u>CARRIED OUT ON 100% EXTERNAL SURFACE</u>		
TEST DETAILS		
METHOD <input checked="" type="checkbox"/> FLUORESCENT <input type="checkbox"/> VISIBLE	<input checked="" type="checkbox"/> WATER WASH <input type="checkbox"/> SOLVENT REMOVABLE <input type="checkbox"/> POST EMULSIFIED	
FAMILY BRAND <u>MAGNA FLUX</u>	BLACK LIGHT S/N <u>16459</u> OUTPUT <u>> 1000 μ W/cm²</u>	<input type="checkbox"/> AMBIENT <u>< 2 fc</u>
PENETRANT <u>ZLO7</u> MINIMUM DWELL TIME <u>45</u> MIN.	LIGHTING EQUIP. <input type="checkbox"/> FLASHLIGHT <input type="checkbox"/> TROUBLELIGHT	<input type="checkbox"/> OUTPUT <u>> 100 fc @ SURFACE</u>
PENETRANT REMOVER <u>H2O</u> MINIMUM DRY TIME <u>> 10</u> MIN.	OTHER <u>LABINO</u>	
DEVELOPER <u>SKD52</u> MINIMUM DWELL TIME <u>10</u> MIN.	LIGHT METER S/N <u>1098966</u>	CAL DUE DATE <u>02/19/2011</u>
DEVELOPER TYPE <input checked="" type="checkbox"/> NON AQUEOUS <input type="checkbox"/> AQUEOUS <input type="checkbox"/> DRY		

TEST SURFACE			
SURFACE CONDITION <input type="checkbox"/> AS GROUND <input type="checkbox"/> AS WELDED <input type="checkbox"/> MACHINED <input type="checkbox"/> SHOT BLASTED <input checked="" type="checkbox"/> CLEAN BARE METAL			
SURFACE TEMPERATURE <input type="checkbox"/> <u>< -4°C/ 20°F</u> <input type="checkbox"/> <u>-4°C/ 20°F TO 10°C/50°F</u> <input checked="" type="checkbox"/> <u>10°C/50°F TO 52°C/125°F</u> <input type="checkbox"/> <u>> 52°C/125°F</u>			

RESULTS- <input type="checkbox"/> METRIC <input checked="" type="checkbox"/> IMPERIAL	
<u>1 CROSS TUBE W.O. 67235 ✓</u> <u>1 CROSS TUBE W.O. 67236 ✓</u> <u>1 CROSS TUBE W.O. 67433 ✓</u> <u>(8) SLEEVE W.O. 65346 ✓</u> <u>1 CROSS TUBE W.O. 67438 ✓</u> <u>1 CROSS TUBE W.O. 67437 ✓</u> <u>1 CROSS TUBE W.O. 67434 ✓</u>	<p>PREVIOUS INDICATIONS FROM MARCH 30-2011 - REPORT # P12233 ON THESE CROSSTUBES HAVE BEEN REMOVED</p> <p>SIC/03/31</p>

Scope of Services
The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care
In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

SIGNATURES		DTR # <u>E-63782</u>
CLIENT REPRESENTATIVE <u>Linda Titley</u>	SIGNATURE <u>[Signature]</u>	REPORT REVIEWED BY:
TECHNICIAN (SIGNATURE): <u>Mike Johnston</u>	NAME <u>Mike Johnston</u>	INITIALS
NAME (PRINT): <u>Mike Johnston</u>	1 ST TECHNICIAN	
CGSB LEVEL <u>2</u> SNT LEVEL <u>—</u>	2 ND TECHNICIAN	
CGSB REG. No <u>6606</u>	CGSB LEVEL <u>—</u> SNT LEVEL <u>—</u>	
	CGSB REG. No <u>—</u>	